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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Brian T. McNamara
Serial No.:	10/556,801
Filed:	11/14/2005
Group Art Unit:	3654
Examiner:	Kruer, Stefan
Title:	TIE-DOWN COMPENSATION FOR AN ELEVATOR SYSTEM

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant now submits its brief in this appeal. A Credit Card Payment form in the amount of $540.00 is enclosed. The Commissioner is authorized to charge Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds for any additional fees or credit the account for any overpayment.

Real Party in Interest

Otis Elevator Company is the owner by assignment of this application. Otis Elevator Company is a business unit of United Technologies Corporation.

Related Appeals and Interferences

There are no related appeals or interferences.

Status of the Claims

Claims 1-10 and 12-23 are pending and on appeal. Claim 11 has been cancelled.

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Claim 6 stands rejected under 35 U.S.C. §112, first paragraph.

Claims 1, 7-9 and 18-19 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,750,945 (the *Fuller, et al.* reference) in view of GB 2,270,292 (the *Miyoshi, et al.* reference).

Claims 2, 10 and 12-14 stand rejected under 35 U.S.C. §103 as being unpatentable over the *Fuller, et al.* reference in view of the *Miyoshi, et al.* reference and in further view of U.S. Patent Application Publication No. US 2001/0025743 (the *Ach* reference).

Claims 3-6 and 15-17 stand rejected under 35 U.S.C. §103 as being unpatentable over the *Fuller, et al.* reference in view of the *Miyoshi, et al.* reference and the *Ach* reference and in further view of U.S. Patent No. 6,401,871 (the *Baranda, et al.* reference).

Claims 20-23 stand rejected under 35 U.S.C. §103 as being unpatentable over the *Miyoshi, et al.* reference in view of the *Baranda, et al.* reference.

Status of Amendments

There are no unentered amendments.

Summary of Claimed Subject Matter

Independent claim 1 recites:

1. An elevator system, comprising:
a cab;
a counterweight;
a load bearing member extending between the cab and the counterweight so that the cab and counterweight move simultaneously;
a tension member extending between the cab and the counterweight, the tension member providing a desired tension on the load bearing member;
a termination associated with an end of the tension member, the termination including an elastic element that dampens an initial tendency of the cab or the counterweight to continue moving even though the other of the cab or the counterweight has stopped; and
a damper supported for movement with one of the cab or the counterweight, the one end of the tension member being associated with the damper such that the damper reduces motion of the cab or the counterweight when

the other of the cab or the counterweight has stopped after a bias of the elastic element is overcome and the elastic element is at least partially compressed.

An example embodiment upon which claim 1 reads is shown in Figures 1 and 2A. The example elevator system 20 includes a cab 22 and a counterweight 26. (Page 3, lines 27-28) The load bearing member 30 extends between the cab 22 and the counterweight 26 so that the cab 22 and counterweight 26 move simultaneously. (Page 3, lines 29-30; page 4, lines 2-5) A tension member 42 extends between the cab and the counterweight. (Page 4, lines 7-8) The tension member 42 provides a desired tension on the load bearing member 30. (Page 5, lines 1-3) A termination 70 is associated with an end of the tension member 42, the termination 70 including an elastic element 74 that dampens an initial tendency of the cab 22 or counterweight 26 to continue moving even though the other of the cab 22 or the counterweight 26 has stopped. (Page 5, lines 22-25; page 6, lines 1-4) A damper 50 is supported for movement with one of the cab 22 or the counterweight 26. The one end of the tension member 42 is associated with the damper 50 such that the damper 50 reduces motion of the cab 22 or the counterweight 26 when the other of the cab 22 or the counterweight 26 has stopped after a bias of the elastic element 74 is overcome and the elastic element is at least partially compressed. (Page 4, lines 20-23; page 6, lines 4-6)

Independent claim 10 recites:

10. An elevator system, comprising:
a cab;
a counterweight;
a load bearing member extending between the cab and the counterweight so that the cab and counterweight move simultaneously;
a tension member extending between the cab and the counterweight, the tension member facilitating maintaining a desired tension on the load bearing member;
a stationary base beneath a lowest available position of the cab and a plurality of sheaves rotatably supported on the base, the sheaves having axes that remain stationary, the tension member moving along the sheaves as the cab and counterweight move;

> a termination associated with an end of the tension member, the termination including an elastic element that dampens an initial tendency of the cab or the counterweight to continue moving even though the other of the cab or the counterweight has stopped; and
>
> a damper supported for movement with one of the cab or the counterweight, the one end of the tension member being associated with the damper such that the damper reduces motion of the cab or the counterweight when the other of the cab or the counterweight has stopped after a bias of the elastic element is overcome and the elastic element is at least partially compressed.

An example embodiment upon which claim 10 reads is shown in Figures 1, 2A and 4. The example elevator system 20 includes a cab 22 and a counterweight 26. (Page 3, lines 27-28) The load bearing member 30 extends between the cab 22 and the counterweight 26 so that the cab 22 and counterweight 26 move simultaneously. (Page 3, lines 29-30; page 4, lines 2-5) A tension member 42 extends between the cab and the counterweight. (Page 4, lines 7-8) The tension member 42 provides a desired tension on the load bearing member 30. (Page 5, lines 1-3)

As can be appreciated from Figures 1 and 4, a stationary base 48 is beneath the lowest available position of the cab 22 and has a plurality of sheaves 46 rotatably supported on the base. The sheaves 46 have axes that remain stationary. The tension member 42 moves along the sheaves 46 as the cab 22 and counterweight 26 move. (Page 4, lines 19-24)

A termination 70 is associated with an end of the tension member 42, the termination 70 including an elastic element 74 that dampens an initial tendency of the cab 22 or counterweight 26 to continue moving even though the other of the cab 22 or the counterweight 26 has stopped. (Page 5, lines 22-25; page 6, lines 1-4) A damper 50 is supported for movement with one of the cab 22 or the counterweight 26. The one end of the tension member 42 is associated with the damper 50 such that the damper 50 reduces motion of the cab 22 or the counterweight 26 when the other of the cab 22 or the counterweight 26 has stopped after a bias of the elastic element 74 is overcome and the elastic element is at least partially compressed. (Page 4, lines 20-23; page 6, lines 4-6)

Independent claim 18 recites:

> 18. An assembly for providing tension on a load bearing member in an elevator system, comprising:
>
> an elongate tension member having a first end that is adapted to be secured to one of a cab or a counterweight;
>
> a termination associated with an end of the tension member, the termination including an elastic element that dampens an initial tendency of the cab or the counterweight to continue moving even though the other of the cab or the counterweight has stopped;
>
> a damper that is adapted to be supported for movement with the other of the cab or the counterweight, a second end of the tension member being associated with the damper such that the damper absorbs a load on the tension member under selected conditions after a bias of the elastic element is overcome and the elastic element is at least partially compressed; and
>
> a base module that is adapted to be secured in a pit and that includes at least one sheave having an axis of rotation that remains stationary relative to the pit, the tension member at least partially wrapping around the sheave.

An example embodiment upon which claim 18 reads is shown in Figures 1 and 2A. The example elevator system 20 includes a cab 22 and a counterweight 26. (Page 3, lines 27-28) The load bearing member 30 extends between the cab 22 and the counterweight 26 so that the cab 22 and counterweight 26 move simultaneously. (Page 3, lines 29-30; page 4, lines 2-5) A tension member 42 extends between the cab and the counterweight. (Page 4, lines 7-8) The tension member 42 provides a desired tension on the load bearing member 30. (Page 5, lines 1-3)

A termination 70 is associated with an end of the tension member 42, the termination 70 including an elastic element 74 that dampens an initial tendency of the cab 22 or counterweight 26 to continue moving even though the other of the cab 22 or the counterweight 26 has stopped. (Page 5, lines 22-25; page 6, lines 1-4) A damper 50 is supported for movement with one of the cab 22 or the counterweight 26. The one end of the tension member 42 is associated with the damper 50 such that the damper 50 reduces motion of the cab 22 or the counterweight 26 when the other of the cab 22 or the counterweight 26 has stopped after a bias of the elastic element 74 is overcome and the elastic element is at least partially compressed. (Page 4, lines 20-23; page 6, lines 4-6)

A stationary base module 48 has at least one sheave 46 rotatably supported on the base. The sheaves 46 have axes that remain stationary. The tension member 42 at least partially wraps around the sheave 46. (Page 4, lines 19-24)

Independent 20 recites:

> 20. An elevator system, comprising:
> a cab;
> a counterweight;
> a load bearing member extending between the cab and the counterweight so that the cab and counterweight move simultaneously;
> a tension member extending between the cab and the counterweight, the tension member providing a desired tension on the load bearing member, the tension member comprising a plurality of belts each having a thickness of approximately 10 mm and a width of approximately 30 mm; and
> a damper supported for movement with one of the cab or the counterweight, one end of the tension member being associated with the damper such that the damper reduces motion of the cab or the counterweight when the other of the cab or the counterweight has stopped.

An example embodiment upon which claim 20 reads is shown in Figures 1 and 2A. The example elevator system 20 includes a cab 22 and a counterweight 26. (Page 3, lines 27-28) The load bearing member 30 extends between the cab 22 and the counterweight 26 so that the cab 22 and counterweight 26 move simultaneously. (Page 3, lines 29-30; page 4, lines 2-5) A tension member 42 extends between the cab and the counterweight. (Page 4, lines 7-8) The tension member 42 provides a desired tension on the load bearing member 30. (Page 5, lines 1-3) The tension member 42 comprises a plurality of belts each having a thickness of approximately 10 mm and a width of approximately 30 mm. (Page 4, lines 6-13)

A damper 50 is supported for movement with one of the cab 22 or the counterweight 26. The one end of the tension member 42 is associated with the damper 50 such that the damper 50 reduces motion of the cab 22 or the counterweight 26 when the other of the cab 22 or the

counterweight 26 has stopped after a bias of the elastic element 74 is overcome and the elastic element is at least partially compressed. (Page 4, lines 20-23; page 6, lines 4-6)

Grounds of Rejection to be Reviewed on Appeal

Claim 6 stands rejected under 35 U.S.C. §112, first paragraph.

Claims 1, 7-9 and 18-19 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,750,945 (the *Fuller, et al.* reference) in view of GB 2,270,292 (the *Miyoshi, et al.* reference).

Claims 2, 10 and 12-14 stand rejected under 35 U.S.C. §103 as being unpatentable over the *Fuller, et al.* reference in view of the *Miyoshi, et al.* reference and in further view of U.S. Patent Application Publication No. US 2001/0025743 (the *Ach* reference).

Claims 3-6 and 15-17 stand rejected under 35 U.S.C. §103 as being unpatentable over the *Fuller, et al.* reference in view of the *Miyoshi, et al.* reference and the *Ach* reference and in further view of U.S. Patent No. 6,401,871 (the *Baranda, et al.* reference).

Claims 20-23 stand rejected under 35 U.S.C. §103 as being unpatentable over the *Miyoshi, et al.* reference in view of the *Baranda, et al.* reference.

ARGUMENT

A. The rejection of claim 6 under 35 U.S.C. §112 must be reversed.

The rejection of claim 6 must be reversed. Claim 6 has been rejected for allegedly containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention.

It is important to note that claim 6 is part of the originally filed application. It is axiomatic, therefore, that the inventors had possession of the invention of claim 6 at the time the application was filed. Further, MPEP §2163(I)(A) indicates that because claim 6 is part of the originally filed application it is presumed to be supported by the original filing. Moreover, the specification on page 4 beginning at line 8 states:

> In one example, the tension member 42 comprises at least one steel-core, rubber coated belt. In one example, the belt has a width of 30 mm and is 9.4 mm thick. This example tension member 42 is significantly different than a rope or chain used in conventional compensating arrangements. As can be appreciated from Figure 2a for example, the tension member 42 preferably comprises a plurality of belts. The illustrated example of Figure 2a includes a total of six such belts.

That portion of the specification clearly describes an example belt having characteristics consistent with those recited in claim 6. The drawings clearly show a plurality of belts. The quoted language above refers to "six such belts" and the word "such" in that context refers back to the belt described having the particular dimensions of that example.

One skilled in the art clearly understands that what is recited in claim 6 was disclosed in a manner consistent with the requirements of 35 U.S.C. §112, first paragraph. Additionally, no further details are required in the description or drawings to convey to the skilled artisan that which is recited in claim 6.

The rejection under 35 U.S.C. §112 of claim 6 must be reversed.

B. The rejections under 35 U.S.C. §103 based upon the *Fuller, et al.* reference must be reversed.

There is no *prima facie* case of obviousness against any of Appellants' claims. The Examiner has attributed features to the *Fuller, et al.* reference that are not there. The Examiner contends that the *Fuller, et al.* reference teaches a "damper (56) supported for movement with one of the cab or the counterweight, one end of the tension member being associated with the

damper such that the damper reduces motion of the cab or the counterweight when the other ... has stopped after a bias of the elastic element is overcome and the elastic element is at least partially compressed." There is no such "damper" in the *Fuller et al.* reference.

First, as the Examiner appears to acknowledge in the office action, the "damper (56)" is not associated with an end of a "tension member (16)" in the reference. Moreover, the active hitch assembly 36 includes active force actuators 56 that do not perform the function suggested by the Examiner. Column 7, lines 10-23 clearly indicate that when the brakes are applied to stop the elevator car, the hitch command signal is controlled "to thereby freeze the position of the force actuators 56 when the elevator car brakes are applied." In other words, the active force actuators 56 are locked in position when the elevator car brakes are applied and no damping occurs that could possibly correspond to that suggested by the Examiner. When the brakes are applied (i.e., the elevator car stops), the active force actuators 56 are frozen in a single position and do not operate as a "damper" that reduces motion after a bias of the elastic element is overcome.

Additionally, in the Advisory Action the Examiner states: "In accordance with the abstract of Fuller et al, said actuators comprise '...the variable extension... controlled for varying the vertical position of the elevator car *along the elevator flight path* for damping at least the high frequency components of elevator car vertical oscillations'." (emphasis added) This statement reinforces Appellants' point that the damper 56 of Fuller is applicable to an elevator cab in motion (*i.e.*, "along the flight path") as opposed to that which is recited in the claims, *i.e.* an elevator cab that has stopped (*e.g.*, "when the other of the cab or counterweight has stopped"). As *Fuller's* damper 56 fails to act as a damper when the elevator cab is stopped, Fuller fails to teach or suggest this limitation of claim 1.

Given the express teachings of the *Fuller, et al.* reference, it is impossible to interpret the reference as suggested by the Examiner and there is no possible *prima facie* case of obviousness against any of Appellants' claims. Even if the proposed combinations could be made, the result is nothing like what the Examiner contends. The rejections of claims 1-19 are all based upon the same flawed interpretation of the *Fuller et al.* reference and, therefore, every one of those rejections must be withdrawn.

Additionally, it is not possible to use the *Miyoshi* reference to somehow change how the *Fuller et al.* arrangement is described as working. First, that would change the principle of operation of the *Fuller et al.* reference. Such a modification cannot be made as explained in MPEP 2143.01(VI).

Second, the *Miyoshi* reference teaches an arrangement that operates in a manner that is the direct opposite of the claimed arrangement. Appellants' independent claims 1, 10 and 18 recite an arrangement including an elastic element of a termination and another damper associated with a tension member as claimed. In Appellants' claims, the bias of the elastic element is overcome first and the damper acts subsequent to that happening. In other words, the spring constant or elastic coefficient of the damper is ***higher*** than that of the termination elastic element. Such an arrangement is the opposite of what is disclosed in the *Miyoshi, et al.* reference.

On page 10, lines 11-15, the *Miyoshi, et al.* reference teaches that its elastic member between the counterweights is "composed of a member having an elastic coefficient ***smaller*** than those of the ropes and thimble rod spring to thereby increase the mode displacement difference between the first and second counterweights." The Examiner cannot interpret the *Miyoshi, et al.* reference in a way that would render it to be consistent with what the Examiner admits is missing

from that which the Examiner contends is in the *Fuller et al.* reference. The *Miyoshi, et al.* reference teaches an arrangement that is the opposite of what is claimed. The *Miyoshi, et al.* reference cannot be modified in a way to make it perform in a manner that is the opposite of how it is intended to perform and then somehow be added to the *Fuller et al.* reference in an attempt to manufacture a *prima facie* case of obviousness. It is not possible to use the *Miyoshi* teachings to somehow attempt to justify a modification of the *Fuller et al.* reference that would somehow render it consistent with the claimed invention.

C. The rejection of claims 1, 7-9 and 18-19 must be reversed.

As just explained, the *Fuller, et al.* reference does not teach what the Examiner contends. Without that, it is impossible for the Examiner to establish a *prima facie* case of obviousness based upon the proposed combination of the *Fuller, et al.* and *Miyoshi, et al.* references. The rejection of these claims must be reversed.

D. The rejection of claims 2, 10 and 12-14 must be reversed.

The proposed addition of teachings from the *Ach* reference does nothing to remedy the defect in the Examiner's improper, proposed combination of the *Fuller, et al.* and *Miyoshi, et al.* references. Even if the Examiner is correct about what the *Ach* reference teaches, the Examiner is contending that the *Fuller, et al.* reference teaches something that is different than what the reference actually teaches. Additionally, as noted above, the *Miyoshi, et al.* reference operates in a manner that is the opposite of Appellant's claimed invention and, therefore, does not provide any basis for modifying the *Fuller, et al.* reference to somehow attempt to render it consistent with Appellant's claimed invention. The rejection of claims 2, 10 and 12-14 must be reversed.

E. The rejection of claims 3-6 and 15-17 must be reversed.

For the same reasons already explained, this rejection must be reversed as there is no *prima facie* case of obviousness. The proposed additional teachings from the *Baranda, et al.* reference do nothing to remedy the defects in the Examiner's base proposed combination of the *Fuller, et al.* and *Miyoshi, et al.* references. There is no possible way to establish a *prima facie* case of obviousness based on the *Fuller, et al.* reference. The rejection of claims 3-6 and 15-17 must be reversed.

F. The rejection of claims 20-23 under 35 U.S.C. §103 must be reversed.

The rejection of claims 20-23 is based on the proposed combination of the *Miyoshi, et al.* and *Baranda, et al.* references. There is no *prima facie* case of obviousness. The *Baranda, et al.* reference discloses a belt corresponding to the ***load bearing member*** of Appellants' claim 20. There is nothing in the *Miyoshi, et al.* or *Baranda, et al.* references that discloses or in any way suggests using a plurality of belts as the ***tension member*** recited in Appellants' claim 20. Therefore, even if the proposed combination could be made, there still is nothing in it that corresponds to the claimed tension member.

Additionally, the sheave sizes mentioned in the *Baranda, et al.* reference are for traction sheaves used to direct the load bearing member. Those traction sheaves have nothing to do with a tension member as recited in Appellants' claims. Therefore, even if the proposed combination could be made, the result is not what the Examiner contends and there is no *prima facie* case of obviousness. There is nothing in either reference that in any way suggests using a tension member arrangement as recited in Appellants' claim 20.

There is nothing in either reference relied upon by the Examiner to indicate how a tension member (distinct from a load bearing member separately recited in Appellants' claim 20) would satisfy the limitations of claim 20. Given that, there is no possible *prima facie* case of obviousness. The rejection of claims 20-23 must be reversed.

CONCLUSION

The rejections under 35 U.S.C. §103 that are based on the *Fuller, et al.* reference include a flawed interpretation of the reference that has no support in the reference, itself. Neither of the references applied against claims 20-23 teaches a tension member are recited in those claims. There is no *prima facie* case of obviousness against any one of Appellants' claims. Additionally, the rejection of claim 6 under 35 U.S.C. §112 must be reversed. All claims are allowable.

Respectfully submitted,

CARLSON, GASKEY & OLDS, P.C.

November 11, 2008
Date

David J. Gaskey
Registration No. 37,139
400 W. Maple, Suite 350
Birmingham, MI 48009
(248) 988-8360

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CERTIFICATE OF FACSIMILE

I hereby certify that this Appeal Brief, relative to Application Serial No. 10/556,801, is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on November 11, 2008.

Theresa M. Palmateer

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APPENDIX OF CLAIMS

1. An elevator system, comprising:

a cab;

a counterweight;

a load bearing member extending between the cab and the counterweight so that the cab and counterweight move simultaneously;

a tension member extending between the cab and the counterweight, the tension member providing a desired tension on the load bearing member;

a termination associated with an end of the tension member, the termination including an elastic element that dampens an initial tendency of the cab or the counterweight to continue moving even though the other of the cab or the counterweight has stopped; and

a damper supported for movement with one of the cab or the counterweight, the one end of the tension member being associated with the damper such that the damper reduces motion of the cab or the counterweight when the other of the cab or the counterweight has stopped after a bias of the elastic element is overcome and the elastic element is at least partially compressed.

2. The system of claim 1, including a stationary base supported beneath a lowest available position of the cab and a plurality of sheaves rotatably supported on the base, the tension member moving along the sheaves as the cab and counterweight move.

3. The system of claim 2, wherein the sheaves comprise plastic.

4. The system of claim 3, wherein the tension member has an outside dimension and the sheaves have a diameter that is approximately thirty times greater than the tension member outside dimension.

5. The system of claim 3, wherein the sheaves have a diameter in the range from about 290 mm to about 330 mm.

6. The system of claim 1, wherein the tension member comprises a plurality of belts each having a thickness of approximately 10 mm and a width of approximately 30 mm.

7. The system of claim 1, wherein the damper comprises at least one of an air spring, a pneumatic damper, a hydraulic damper or a mechanical spring.

8. The system of claim 7, including a first member acting against one side of the damper and a second member associated with an opposite side of the damper, the first member remaining stationary relative to the cab or counterweight with which the damper moves, the second member being moveable relative to the first member, the damper resisting movement of the second member toward the first member.

9. The system of claim 7, wherein the termination is secured near one end of each of a plurality of thimble rods, an opposite end of the thimble rods being positioned on an opposite side of the second member from the damper and, wherein the elastic element comprises a spring associated with each opposite end of each thimble rod to urge the opposite ends away from the second member.

10. An elevator system, comprising:

a cab;

a counterweight;

a load bearing member extending between the cab and the counterweight so that the cab and counterweight move simultaneously;

a tension member extending between the cab and the counterweight, the tension member facilitating maintaining a desired tension on the load bearing member;

a stationary base beneath a lowest available position of the cab and a plurality of sheaves rotatably supported on the base, the sheaves having axes that remain stationary, the tension member moving along the sheaves as the cab and counterweight move;

a termination associated with an end of the tension member, the termination including an elastic element that dampens an initial tendency of the cab or the counterweight to continue moving even though the other of the cab or the counterweight has stopped; and

a damper supported for movement with one of the cab or the counterweight, the one end of the tension member being associated with the damper such that the damper reduces motion of the cab or the counterweight when the other of the cab or the counterweight has stopped after a bias of the elastic element is overcome and the elastic element is at least partially compressed.

11. (Cancelled)

12. The system of claim 10, wherein the damper comprises at least one of an air spring, a pneumatic damper, a hydraulic damper or a mechanical spring.

13. The system of claim 10, including a first member acting against one side of the damper and a second member associated with an opposite side of the damper, the first member remaining stationary relative to the cab or counterweight with which the damper moves, the second member being moveable relative to the first member, the damper resisting movement of the second member toward the first member.

14. The system of claim 13, wherein the termination is secured near one end of each of a plurality of thimble rods, an opposite end of the thimble rods being positioned on an opposite side of the second member from the damper and, wherein the elastic element comprises a spring associated with each opposite end of each thimble rod to urge the opposite ends away from the second member.

15. The system of claim 10, wherein the tension member has an outside dimension and the sheaves have a diameter that is approximately thirty times greater than the tension member outside dimension.

16. The system of claim 15, wherein the sheaves have a diameter in the range from about 290 mm to about 330 mm.

17. The system of claim 10, wherein the tension member comprises a plurality of belts each having a thickness of approximately 10 mm and a width of approximately 30 mm.

18. An assembly for providing tension on a load bearing member in an elevator system, comprising:

an elongate tension member having a first end that is adapted to be secured to one of a cab or a counterweight;

a termination associated with an end of the tension member, the termination including an elastic element that dampens an initial tendency of the cab or the counterweight to continue moving even though the other of the cab or the counterweight has stopped;

a damper that is adapted to be supported for movement with the other of the cab or the counterweight, a second end of the tension member being associated with the damper such that the damper absorbs a load on the tension member under selected conditions after a bias of the elastic element is overcome and the elastic element is at least partially compressed; and

a base module that is adapted to be secured in a pit and that includes at least one sheave having an axis of rotation that remains stationary relative to the pit, the tension member at least partially wrapping around the sheave.

19. The assembly of claim 18, wherein the damper includes at least one of an air spring, a hydraulic actuator, a pneumatic actuator or a mechanical spring.

20. An elevator system, comprising:

a cab;

a counterweight;

a load bearing member extending between the cab and the counterweight so that the cab and counterweight move simultaneously;

a tension member extending between the cab and the counterweight, the tension member providing a desired tension on the load bearing member, the tension member comprising a plurality of belts each having a thickness of approximately 10 mm and a width of approximately 30 mm; and

a damper supported for movement with one of the cab or the counterweight, one end of the tension member being associated with the damper such that the damper reduces motion of the cab or the counterweight when the other of the cab or the counterweight has stopped.

21. The system of claim 20, including a stationary base supported beneath a lowest available position of the cab and a plurality of sheaves rotatably supported on the base, the tension member moving along the sheaves as the cab and counterweight move.

22. The system of claim 21, wherein the tension member has an outside dimension and the sheaves have a diameter that is approximately thirty times greater than the tension member outside dimension.

23. The system of claim 21, wherein the sheaves have a diameter in the range from about 290 mm to about 330 mm.

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EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.